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CONTENTS

President's Message. *Hugo M. Kulstad* 1

President's Report: Midcentury White House Conference on Children and Youth. *Hugo M. Kulstad* 2

General Anesthesia for Operative Techniques in Spastic, Demented and Very Young Children. *E. Reed Smith, D.D.S.* 6

Psychosomatic Sleep, Applied to Dentistry. *S. Irwin Shaw, D.D.S.* 10

American Board of Pedodontics. *Announcement* 15

Around the Country. *Conducted by Laren Teutsch* 16

A Psychological Approach to Local Anesthesia for Children. *Jason R. Lewis, D.D.S.* 19

Unit News. *Conducted by Mel Noonan* 22

The Nasal Septum and Factors in Open-Bite Malocclusion. *James W. Decker, D.D.S.* 25

An Engineer's Evaluation of Class II Cavity Preparations for Silver Amalgam Restorations in Primary Teeth. *Walter F. Weiland* 29

The Constitution and By-Laws of the American Society of Dentistry for Children 34

HUGO M. KULSTAD, President, A.S.D.C.

I am informed by our Secretary-Treasurer that dues collections are lagging in some areas. We need all of our former, and many new members, if we are to fulfill our obligations.

Will each of you take the personal responsibility of reminding a member to pay his dues, and get at least one new member for your Unit?

My sincere thanks to you.

HUGO M. KULSTAD, D.D.S.

Midcentury White House Conference on Children and Youth

AS your President, and one of the Delegates to the White House Conference, it is my privilege to submit this brief report for the Delegation.

Over 5,000 delegates were divided into 31 working groups and the conference lasted 4½ days. Each delegate was assigned to one of the work groups and was asked to remain with that group. All of the groups were designed to bring together the thinking and experiences of a variety of interests that might contribute to the basic considerations upon which recommendations were made. The entire dental delegation was not sufficiently large to be represented in each work group and in some cases we found two had been assigned to one group.

We were concerned about the problem of being effective in having dental health recognized as an important factor in general health and in the specific problem of the Conference, "A Fair Chance for a Healthy Personality." There were 18 representing the dental profession, 180 physicians, and 150 Universities were represented among the over 400 organizations.

The dental group met before the conference to plan for the most effective participation and uniformity of presentation. The physicians also had such a meeting, as did a great many of the national organizations. There was no real opportunity for a formal presentation, but the planning did help each individual to do a better job when he had a chance.

I am not sure that anyone knows exactly how many recommendations came out of the working groups to the staff committee responsible for eliminating duplication, re-phrasing for clarity, and reducing to a minimum without changing meaning. Theirs was a colossal job, and they finally gave to the conference on the last day 67 resolutions, some with as many as 6 subparts.

Although the Conference was concerned directly with "Healthy Personality," and no one physical health problem nor any other single factor, it is interesting to note the importance ascribed to the part of physical health in that 13 out of the 67 resolutions specifically mention it.

3. That education for parenthood be made available to all through educational, health, recreation, religious, and welfare agencies maintaining professional standards and staffed by properly qualified individuals.
8. That all professions dealing with children be given, as an integral part of their preparation, a common core of experiences dealing with fundamental concepts of human behavior, including the need to consider the total person as well as any specific disorder; the interrelationship of physical, mental, social, religious, and cultural forces; the importance of interpersonal relationships; the role of self-understanding; and emphasis on the positive recognition and production of healthy personalities and the treatment of variations; and that lay people be oriented through formal or informal education to an understanding of the importance of the foregoing concepts.
9. That steps be taken at National, State, and local levels to improve the facilities and increase the output of

professional schools preparing persons for services to children.

10. That more energetic efforts be made by both public and private organizations for support of selective recruitment and training of professional workers and for an extensive program of scholarships.
11. That professional workers be trained in such a way that they will understand and respect other professional skills and contributors so that they may work together to further community growth. Some of the ways this might be achieved are:
    a. In all levels of undergraduate education, students should receive broad preparation in the knowledge of human growth, behavior, and motivation which ought to be common knowledge for all students. This would also serve as a background for professional education.
    b. In schools preparing for professional work, there should be included in the curriculum through both the classroom and field experience opportunities for cooperative work on problems common to all professional interests, including study in human growth and change and in family counseling.
    c. The practicing professional worker should further his training by seeking, utilizing, and promoting opportunities to relate to and participate with other professional and citizens' groups in resolving problems of the individual and the community.
    d. Orientation programs should be planned for all professional persons and interprofessional groups in the community.
12. That ways and means be found for the formal and informal in-service education of professional people and that information on promising practices be widely disseminated.
13. That an inquiring attitude be maintained toward all services, with appropriate provision at all levels for continuous scientific study of needs, objectives, alternative methods, and effectiveness of programs.
14. That prompt action be taken at the national level to provide funds supplementing those of States and localities for the early development of adequate local health service throughout the country, such action being particularly needed because of the physical and mental effects of mobilization and war on mothers, children, and youth.
15. That all States establish standards for the hospital care of mothers and children, in order to assure the quality of care which modern science knows how to give; and that these standards take into account the importance of avoiding unnecessary distress and anxiety.
18. That it be made possible for qualified youth to obtain college or university education which would otherwise be denied them because of inability to pay.
41. That children of migrant and seasonal workers be given all the protections and services available to other children, with special regard to transportation, housing, sanitation, health and educational services, social benefits, and protection under labor laws.
48. That governmental and voluntary agencies work to meet the needs of the wives and children of personnel in the armed forces moving to new communities, in order to insure their

absorption into community life and to provide adequate housing, health, educational, recreational, and spiritual services to meet their needs.

54. That, in view of television's unprecedented growth and its potential as a medium for mass education, the television industry and all educational, health, and social agencies seeking to use this medium accept their great social responsibility, and further, that this principle apply also to the other media of mass communication.

And, of course, #67 has direct bearing on all:

67. That immediate, vigorous, and continuing work be undertaken to provide for the organization and financing of National, State, and local programs which would put these recommendations into action.

Much consideration was given to religious training; general education, from pre-school through adulthood; recreation; nutrition; housing; and many other aspects of modern life. Emphasis was placed on equal opportunities, regardless of race, color, or creed.

Norman Denner summed up his report with the following statement:

"It's good to concentrate on youth's healthy development and, as such, the convention served an excellent purpose in focusing attention and perhaps renewing vigor, but there was nothing new brought, nor any plan submitted, to my knowledge, that had not already been attempted and assiduously worked at by good and thoughtful and religious parents back home."

David Ast made the following observations:

"Whereas, in previous White House Conferences, the emphasis was principally concerned with the physical well-being of the child, this Midcentury Conference emphasized the spiritual and emotional development. While in many of the group discussions, the physical aspects were discussed, these were in broad, general terms, rather than specific defects.

"Of the many meetings and conferences which I have attended, none more than this one gave eloquent expression of democratic processes at work. This was especially evident at the last day's session when the Platform and Recommendations were brought before all of the delegates present and each who wished to had the opportunity to voice his opinion. Each recommendation was voted on independently. With so many persons representing so many different viewpoints, the end result was without question the pooled knowledge and recommendations of the delegates assembled to consider ways to achieve the optimum in the total development of our children and youth."

Although I agree with Dave on the democratic process having worked, I was a little bit sorry to see the differences of opinion concerning religion, education and state debated so feelingly on the floor. I am sure the majority opinion prevailed in the voting, but it was very close. I am also sure that no attitudes about these most delicate of private personal feelings were changed. Those on the losing side, like good Americans, did accept the wishes of the Conference, but some whom I observed, and talked with, were hurt.

I am sure when emotions calmed and

some of the great benefits possible are achieved out of the fine recommendations coming out of the great group action in sharing knowledge and experience, all will be well. As Norm observed, there was nothing really new, but all of us need to re-state our aims and objectives occasionally and be reminded of our obligations. We also need this experience in working together to learn better the technics of solving some of the problems caused by living together as we must ir this world.

HUGO M. KULSTAD, D.D.S.

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General Anesthesia for Operative Techniques in Spastic, Demented, and Very Young Children

E. Reed Smith, D.D.S.
*Washington, D. C.**

Editor's note:

More and more attention is being paid to the dental care of spastic children—and rightfully so—for they are a group of neglected human beings. Although this article may not touch your own personal practice, it will give you an insight into the problems involved—and we hope it will encourage you to aid these spastic children to find proper dental care.

A.E.S.

IN THESE times of scientific advancement, it is difficult to isolate a particular group among patients that is not being adequately served. Dentistry during the past twenty-five years has utilized the weapons of discovery to further the general public health to a commendatory degree, and has, with the medical profession, furthered the ideal of better health for more people.

There is, however, a category among patients which the profession has been physically handicapped in serving. It is the aim of this paper to discuss a method of accomplishing surgical and restorative dentistry in this group: spastic, demented, and very young children. These children, often suffering from rampant caries, present a problematical picture revolving around the inability of the general practitioner to control their aimless movements and behavior. It is the opinion of this writer that the problem can be solved by the instigation of a program of collaboration between the anesthesiologist and the dentist. Anesthesiology has been one of the prime factors enabling medicine to render service free of pain and fear, and there is no reason why this branch of science cannot be utilized by dentistry to aid a practically unserviceable group of patients. Anesthetic of Choice:

In over five hundred cases, the anesthetic of choice for induction has been Di-vinyl Ether. We have used the proprietary preparation known as "Vinethene"[1] which is Di-vinyl Ether with the addition of 3.5% absolute alcohol to render the product less volatile and 0.01% of a non-volatile oxidation inhibitor (phenyl-anaphthylamine) put up in an atmosphere of nitrogen. It has several advantages in children, namely:

1. Simplicity of administration. The drug in a 25 cc bottle and a gauze-covered, wire induction mask are the only visible apparatus. This tends to eliminate the psychic trauma that children undergo at the sight of strange and frightening equipment.

2. It produces a quick induction and rapid recovery. This is particularly advantageous, as the child passes through the excitement stage almost instantly. He undergoes few if any dreams which tends to allay fear of any later anesthetic experience.

* Director Department of Dentistry for Children, Georgetown University.

[1] "Text Book of Anesthetics"—Minnitt and Gillies. 6th Edition. Williams & Wilkins, pp. 190–192.

3. A fast and complete relaxation which facilitates the insertion of the endotracheal tube later.

4. Vinethene seldom produces post-operative nausea.

5. It does not irritate the respiratory passages.

6. There is a readiness with which a change-over can be made to Ethyl Ether after Di-vinyl Ether has been used for the induction. This is advantageous as prolonged anesthesia with it has resulted in some evidence of liver damage[2]

FIG. 1. Overall hospital set-up with work progressing under general anesthesia.

and most of these operative cases run longer than the safe 30 minute limitation on Di-vinyl Ether.

However, it is an interesting observation that Goldschmidt and his co-workers found that the necrotizing effects of Vinethene on the liver cells of the dog are largely prevented by admixing the anesthetic with oxygen. High carbohydrate diet was as effective as O_2 in protecting the liver in dogs.

7. I have noted in the majority of cases that the children cannot remember their dreams (if they have any) within one minute after complete recovery. This also reduces the possibility of psychic trauma.

When induction is complete and the endotracheal tube is inserted and connected, anesthesia is carried on by switching over to Diethyl Ether. Anesthesia has been continued for a period of three hours utilizing these agents and supplemented by O_2.

FIG. 2. Method of administering Di-vinyl Ether after insertion of tube.

FIG. 3. Endotracheal tube and Adams connector curving up and away from field of operation.

THE TECHNIQUE OF ANESTHESIA

In all of these types of cases I believe nasotracheal intubation is indicated. This method was first employed by Trendelenburg in 1871[3] and has advanced rapidly

[2] Ibid. p. 190.
"The Art of Anesthesia"—Flagg. 6th Edition. Lippincott, 1939. pp. 431–432.
"British Medical Journal"—C. J. M. Dawkins. Jan. 4, 1938. p. 1236.
"British Medical Journal"—S. M. Guerrier and C. S. Dafoe. March 2, 1940. p. 366.

[3] "Arch f. Klin. Chir."—Trendelenburg. 1871, Vol. 12, p. 121.

to its present position in anesthetic circles. It is particularly indicated for operations in which obstruction to the airway may be expected either from the nature of the disease, the surgical technique, the position of the patient or the presence of fluids in the air passages.[4]

The patient is induced with Di-vinyl Ether and carried into Stage III, plane II; where the pharyngeal reflexes are depressed, thereby enabling the tube to be easily inserted. The deeper automatic breathing which is seen at this level tends to give the best chance for successful manipulation of the tube. A Magill tube is inserted through the nose and utilizing a Magill forcep and Magill laryngoscope it is gently inserted into the trachea. An Adams type adaptor is attached to the tube and to it either the ether vaporizing machine or some type of mechanical drop attachment is used to maintain anesthesia in Stage III plane II.

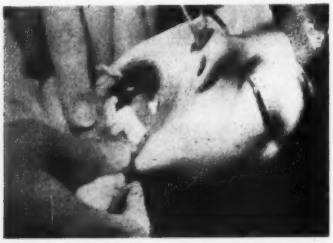

FIG. 4. Photograph showing rubber mouth block in position and freedom of field of operation.

Technique of Operative Procedure under Anesthesia

With the patient now completely under anesthesia and the mechanism conveniently taped to the forehead, the dentist is now ready to begin his work. A 4 x 4 gauze soaked in normal saline is packed into the posterior part of the mouth and a rubber surgical mouth block is placed between the teeth on the side opposite from which the operator plans to work. All cavities are prepared at one time in each quadrant. I use a Thermex spray attachment to my handpiece through which air continuously flows. This prevents overheating of the tooth by friction from the revolving bur and also keeps the cavity preparation free of debris. The dental assistant can easily hold the tongue away in the lower quadrant with a No. 3 cotton roll. Operative techniques are the same as for any patient and amalgam is placed in the prepared cavities. If time is a factor, I believe in "spot filling" the mesial of primary first molars, if there is no occlusal involvement, as this is in a self-cleansing area and may be watched. This also holds true for the mesial of primary second molars if the primary first molar is missing. Chrome metal crowns are easily prepared and inserted over badly broken-down vital primary molars after all decay is removed. Maxillary first permanent molars may also be "spot filled" in the mesial and distal pits if a strong transverse ridge separates the areas of involvement.

When all restorations are completed in the upper and lower quadrants on one side, the mouth is wiped free of debris. The mouth block is removed and the jaw is shut and manipulated manually with the teeth in occlusion to facilitate the detection of high spots in the restorations.

Surgery in the two completed quadrants is now undertaken. As each indicated tooth is removed, unless a subacute, acute, or chronic abscess is present, a self-dissolving hemostatic packing is inserted into the pocket to prevent hemorrhage invading the field of operation.

A new packing is now inserted in the

[4] "Recent Advances in Anaesthesia and Analgesia"–Hewer, C. L., 6th Edition, 1948. Blakiston Co., p. 111.

throat and the mouth block is moved to the other side. Restorations and surgery are accomplished in the two remaining quadrants.

Upon the completion of all dental techniques, anesthesia is discontinued. All debris and mucous is aspirated from the throat and trachea through the Adams connector. It is also removed digitally from the mouth itself. The endotracheal tube is left in position until the patient has advanced to the point where the cough, swallowing, and gag reflexes have returned. A gastric lavage may be easily accomplished with a long, small catheter tube to eliminate any secretions accumulated during anesthesia.

Office Versus Hospital Techniques

As before stated, I believe that this type of anesthesia can only be accomplished with the services of a qualified anesthesiologist. The actual work is easily and more efficiently carried out in the operating room of a hospital where preoperative and postoperative care is at a maximum. The dentist can bring his necessary equipment and a surgical engine may be used. However, if recovery space is available, as well as an O_2 machine and aspirator, the anesthesiologist can easily accomplish the work in the dentist's office, where all dental equipment is available.

In this type of work the dentist is compensated with personal satisfaction knowing he has restored to dental health a patient usually destined to suffer through childhood with carious and abscessed teeth.

Psychosomatic Sleep, Applied to Dentistry

S. Irwin Shaw, D.D.S.*
Detroit, Mich.

Editor's note:

Dr. S. I. Shaw is a native of England who came to America in 1915. In 1919 he received his D.M.D. at Tufts College and returned to Manchester, England to practice dentistry. In 1922 Dr. Shaw returned to America and set up dental offices in Detroit, where he now practices.

We have seen and heard Dr. Shaw in his presentation and demonstrations many times, and know that hypnotism can be a very demonstrable aid in controlling pain in patients. We wish it were possible for all of our readers to meet this interesting man, but realizing that is impossible, we are bringing you his written ideas on the subject.

A.E.S.

PSYCHOSOMATIC sleep in itself is extremely valuable to both the dentist and the patient. Those who have not seen dentistry practiced under this ideal condition can have no idea of its worth to the profession.

By conditioning with repeated suggestions, the patient reaches the stage where he goes into psychosomatic sleep with attendant anesthesia and relaxation, immediately on being seated in the dental chair, and the condition is made to end automatically upon arising from the chair.

Every type of dentistry can be painlessly performed under this suggested anesthesia, and the patient need not close his eyes. Outwardly the patient is no different from any other completely relaxed patient. The only difference is the ready acceptance by the patient of suggestions given by the operator, and the inter-response between the patient's psyche (mind) and soma (body). The mind accepts the suggestion of anesthesia to every part of his mouth, and reacts on those parts to render them insensitive to painful stimuli.

Dental work is performed in less time and with greater efficiency. The dentist is under no strain, and the patient is completely relaxed and fully co-operative. What is more, the patient leaves the chair refreshed from the relaxation, and in a much happier frame of mind than when other types of anesthetic are used. The improvement to his morale is so self-evident, the patient looks forward with pleasure to his next appointment!

It sounds like a Utopia for dentist and patient alike, and it would be, if psychosomatic sleep were as easily effected as local anesthesia.

The difficulty of inducing this so-called 'sleep' is recognized as a drawback. While it may be obtained the very first time in extremely responsive patients, it may require a varying number of visits in others, and in certain cases there are no acceptable results.

In the past, objection to the word "hypnotism" has been a factor in subconscious resistance on occasion, that is why the words "psychosomatic sleep" have been substituted. Fear of the unknown; the fear of becoming subjected to the dentist's will for all time; the assumption that such response is evidence of a low I.Q.; and other apprehensions, make the patient unresponsive, and a great deal

of time is required with these patients in educating them to break down such resistance.

Then of what value is psychosomatic sleep to dentistry?

To begin with, it is of great value even if used only on those whose response is immediate. It is also of great value as a reserve type of anesthesia, and where acceptable, it is a boon to those patients with physical disabilities which contraindicate the use of general or local anesthetic. For these patients the result is well worth the time and effort to bring about the psychosomatic response to suggested anesthesia.

However, the greatest value of psychosomatic sleep to the dentist is not so much in his ability to render a patient insensitive to pain, but in his ability to apply the underlying principle of the technique—suggestion—to himself and every patient, whether they accept psychosomatic sleep or not.

Our profession definitely presents a problem of close interpersonal relationship between the practitioner and apprehensive patient. In earlier years we approached the problem with concentration solely on the patient, and patient education was the keynote. Today a knowledge of psychosomatic sleep and its underlying principles, points to the fact that the harmonious relationship between dentist and patient depends on the interchange of feelings between them at all times, so that the *dentist* must learn to present a favorable mental attitude in this constant interchange of feelings and emotions.

One of the phenomena of the psychosomatic sleep state is what is known as "rapport." It is a peculiar harmony between the operator and the subject, in which the subject strives to please by accepting and carrying out the suggestions of the operator. This "rapport" has its origin in the faith and co-operation of the subject.

Knowing this, the dentist familiar with the induction of psychosomatic sleep, can set out to win the faith and co-operation of all his patients along the same lines. A sincere and gentle consideration of the patient, child or adult, will result in approval when he understands that we recognize his fear, and that we are genuine in our attempts to reassure him. We reassure all patients in the same way that we induce 'sleep' in those who respond—i.e. by suggestion.

By suggestion we convince the patient with our manner of approach and verbally with our tone of voice, that we understand their feelings, and that we will exercise every consideration and precaution while serving their dental needs.

When the patient recognizes our sincerity, all feelings of hostility evaporate, and even though timid and anxious, the patient becomes somewhat co-operative. Following a few visits that are agreeable, the fears are diminished, even to a liking of the dentist himself. There is "rapport" between patient and dentist without actually resorting to psychosomatic sleep itself. In addition to our verbal suggestions, the patient thereafter conditions himself by auto-suggestion to become a model patient.

Patients all expect a certain amount of unpleasantness at the hands of the dentist, but are agreeable, co-operative, and tolerant of reasonable suffering, as soon as they establish in their own mind that the dentist is considerate, understanding, and sympathetic. To the adult patient such a dentist has the so-called "light hand."

This *can* be accomplished with the help of positive verbal suggestions. "Positive" is added to differentiate from the insin-

cere parrotlike "this won't hurt" that has made the dentist a butt for the comic cartoonist, and an undesirable fearful character to the child patient.

Suggest repeatedly in a sincere manner that there will be very little suffering (the word "pain" is avoided wherever possible) and prove it by doing only enough for the young patient to convince him of the truth of your suggestion. Once convinced of the dentist's sincerity, the patient has faith and believes in him. There is full co-operation.

Dr. Edward Ryan, in his book *Psychobiological Foundations in Dentistry* says (p. 65), "There is no form of therapy more potent than suggestion. It is the basis of hypnosis. It is the core of all training."

Psychosomatic sleep is valuable in dentistry in that the practitioner is keenly aware at all times of the potency of suggestion, and makes use of it even when the phenomena of the sleep state are not under consideration. By the use of this knowledge the interpersonal relationship between dentist and patient can be improved, to render a better dental service to a better patient.

With children, the acceptance of suggestion in training is evident in the response given to those whom they respect and recognize as intensely interested in their welfare,—i.e. parents and teachers. This acceptance is readily shared with all adults who make the effort to win the child's confidence.

It can be won by the dentist in one or two sessions by employing a gentle, unhurried manner at all times; using a quiet soothing voice; employing a quiet-running engine; avoiding too high a chair, and holding the little youngster when he needs to lean over the bowl, plus all other considerations to make the young patient realize we are very much concerned with his comfort and well-being.

To win the confidence is to obtain "rapport" between child and adult, and as stated above, with this harmony between patient and dentist, the child strives to please by accepting and carrying out the suggestions given for relaxation and co-operation.

Furthermore, the child recognizes that he is being given adult consideration, and, as this suggests itself to the young mind, an inner satisfaction is experienced, the child's 'ego' is inflated, and he develops a liking for the personality of his dentist.

Apart from operative dentistry, the value of psychosomatic sleep in the fields of preventive dentistry and prosthodontia can also be given some consideration.

The new trend in dentistry recognizes the relationship between the emotional make-up of an individual and the condition of his mouth, in the same way that psychosomatic medicine recognizes the relationship between emotional conflict and various physical disorders of the body.

In consideration of this, Dr. Edward Ryan outlines age groups after the pattern of Shakespeare in *As You Like It*, and presents the emotional problems of each group, beginning with, "the infant, mewling and puking in the nurse's arms," —from birth to six years of age. The second group, classified as "the whining schoolboy" embraces the emotional tensions from six to sixteen years. The "lover," from sixteen to twenty-five years, constitutes the third group with its own mental problems. The "soldier full of strange oaths" is next in Shakespeare's classification — twenty-five to thirty-five years in Dr. Ryan's fourth grouping. The justice, "in fair round belly" is thirty-five to fifty-five years—

the fifth. The sixth group is fifty-five to seventy-five years, and in the seventh we have senility—"sans teeth, sans eyes, sans taste, sans everything."

Each one of these stages presents its own emotional problems, and the mouth, no longer an isolated part of the body, reflects the same systemic changes as the rest of the body. Those familiar with full denture practice know that the mouth, as part of the body, reflects the changes in wasting diseases such as anemia, diabetes, and tuberculosis, to alter the fit of dentures. Emotional stress is already recognized as the cause of physiological and glandular upsets within the body, and, true to psychosomatic reaction, endocrine changes are known to result in emotional upset. From this it is reasonable to assume that these changes can also be present in the mouth, which is part of the body.

These changes are effected through the autonomic nervous system. This secondary system, as differentiated from the primary nervous system in the brain cortex, consists of a network of nerves running from two trunk lines which extend along the spinal column. These two lines are designated the sympathetic and the para-sympathetic divisions,—the former stimulating and exciting, the latter inhibiting and retarding all functions controlled by the system. The focal point of this autonomic nervous system is the hypo-thalamus, located in the midbrain, and the control and correlation of the whole system is by the subconscious mind acting through the thalamus.

Suggestions and the emotions, jointly or individually, are accepted by the subconscious, to either stimulate or inhibit the activities controlled through the autonomic nervous system.

Capillary circulation, and glandular activities may be altered in this manner, so that in the mouth, the nourishment of the tissues may be affected by prolonged tension and emotional upset in *any* of the age groups, to become a cause of periodontal disease. Altered glandular activity may change the chemistry of the saliva to affect the pH level, and if so, prolonged or chronic emotional tension may become a cause of dental caries where the lacto-bacillus acidophilus become overactive as a result of such salivary change.

Since the autonomic nervous system will respond to psychosomatic suggestions, a proper and healthy emotional balance can be maintained thereby in all the age groups that present the abilities of reasoning and understanding. Individuals in these groups who are in need of a controlled emotional outlook can benefit by psychosomatic sleep suggestions. The resulting emotional balance can produce normal psychosomatic response to regulate the chemical activity of the salivary glands, and with normal capillary circulation of blood, stimulate the tissues of the mouth.

Along these lines, psychosomatic sleep could be valuable in preventive dentistry.

Its value in prosthodontia becomes evident when we familiarize ourselves with the emotional make-up of the age groups most prone to prosthetic requirements within the mouth.

The thirty-five to fifty-five year group presents the beginning of endocrine changes in the body, and these glandular changes bring about certain emotional stress. Also, apart from the possibility of tissue changes resulting from capillary disturbances due to this glandular upset, the individual may become irritable and non-co-operative. In addition, if a failure in his life's ambition, the individual presents a depressed outlook, or he may

be suffering from ill health as a result of overwork mentally, and physically, in obtaining his life's ambition. Psychosomatic sleep can be a means whereby these patients may obtain an entirely new outlook through suggestion. In addition to developing an optimistic outlook, these patients become more agreeable in their attitude towards their prosthodontic restorations. In the state of "rapport" they are anxious to please, and so they learn to wear their dentures very quickly, and uncomplainingly.

Dr. Ryan points out that the sixth and seventh group presents patients with physical powers on the decline, and points out that in addition to oral changes with very low tissue tone there is very little co-operation due to lack of reasoning and understanding. This is true of those whose first introduction to dentures comes at this age. Those however who have already worn dentures for a number of years can be changed from "dental jugglers" as Dr. Ryan calls them, to satisfied denture wearers by means of psychosomatic sleep, providing they show response to suggestion by accepting the "sleep" state.

From the above, the value of psychosomatic sleep applied to dentistry, is very evident, and it is hoped that this article will stimulate further interest in this new trend, to develop its use on an extensive scale, for the benefit of the patients we serve, as well as to the credit of the dental profession itself.

2316 Broderick Tower

American Board of Pedodontics

The following dentists successfully completed all areas of the examination held at St. Louis in February 1951, and are diplomates of the Board:

1. J. J. Tocchini—455 Grand Avenue, South San Francisco, Calif.
2. R. M. Way—505 Bondi Building, Galesburg, Illinois
3. Harold Berk—471 Commonwealth Avenue, Boston, Massachusetts
4. Carl Ellertson, Jr.—381 Lytton Avenue, Palo Alto, Calif.
5. G. E. Waterman—South 14th & C Streets, Richmond, Indiana
6. G. H. Rovelstad—1170 Bellevue Ave., Elgin, Illinois
7. Raymond Werther—255 South 17th Street, Philadelphia, Pa.
8. E. F. Ritsert—Oxford Ave. & Penn Street, Philadelphia, Pa.
9. M. M. Cohen—520 Beacon Street, Boston, Massachusetts
10. Frank Nemec—1 Flint Building, Auburn, New York
11. Joseph T. Hartsook—School of Dentistry, Uni. of Michigan, Ann Arbor, Michigan

Because some dentists have been under the impression that under the waiver clause they could not apply for examination after January 1, 1951, the following resolution is published:

"Candidates who can qualify for the Board examination under the waiver clause (Sec. III A of the Requirements for Certification) may apply for examination at any time and may be examined by the Board at any further examination period scheduled by the Board."

A candidate for certification by the American Board of Pedodontics who fails one or more areas of the examination may, by majority vote of the Board and payment of the required fee, repeat the unsatisfactory areas at any of three subsequent examinations scheduled by the Board. If a candidate who qualified for the examination under the waiver clause (III A) fails any of these areas in his second examination, he must then satisfy the education requirements listed under II A of Requirements for Certification before reapplying for examination. No candidate may take the examination more than two times unless, in the opinion of the Board, the circumstances merit a third examination.

The next examination of the American Board of Pedodontics will be held at the College of Physicians and Surgeons, San Francisco, California, August 4, 5, 6, 7, 1952.

Ralph L. Ireland, *Secretary*
American Board of Pedodontics

Around the Country

Editor of this column for 1951 will be Laren Teutsch. Please direct items of interest to him at 4201 Farnam Street, Omaha 3, Nebraska.

* * *

President Hugo Kulstad has asked this column to locate copies of the following issues of our Journal: Volume 3, 1936, 4th Q, Volume 8, 1941, 2nd Q. If anyone has a copy of the issues requested, Hugo would like to have it sent to him at 760 Market Street, San Francisco 2, California.

* * *

Art Mickler, who recently completed requirements for his M.S. in Dentistry for Children at Ann Arbor, has opened offices at 1974 A Douglas Blvd., Louisville, Kentucky. Good luck to you, Art—and remember you have a staunch supporter in Henry Wilbur at Louisville's School of Dentistry!

* * *

Alex Bell of our Washington State Unit was so pleased with his picture in the last issue of our Journal that he offered to buy up all the copies entering the State! Dave Law and his pal Coleman are holding onto their copies, with some mention being made of presenting them to Ruth Bell, a close associate of Alex!

* * *

Walter McBride has had a busy schedule of appearances around the country. He has recently appeared at Milwaukee, Minneapolis, Northwestern University and New York, each time doing his usual masterful job.

* * *

Ralph Ireland will appear on the program of Western Canada Dental Society's Biennial Convention later this year. Remember to buy a couple pairs of argyle socks while you're up there, Ralph.

* * *

The inaugural meeting of the Canadian Society of Dentistry for Children was held May 12, at Toronto. President Kulstad has conveyed official congratulations to this group—but we'd like to add ours too, and wish them success.

* * *

Our New York Unit's annual meeting was held May 9 at Buffalo. President Bowman and President-elect Montgomery took turns presiding over another wonderful meeting. Walter McBride spoke at the evening session, and table clinics were presented in the afternoon by the following men: Joseph Kauffman, Harold Klein, Sidney Kronfeld, Robert MacConkey and Charles Mainhold, Eugene North, Martin Valentino and Sheridan Waite.

* * *

We received a very interesting report on the Strong-Carter Dental Clinic in Honolulu, from its Director John H. Dawe. A summary was published in the A. D. A. Journal, so we shall merely state here that the Clinic has certainly rendered a wonderful service to the children of the Island.

* * *

Fellowships and Teaching Assistantships are available for a limited number of graduate students in the University of Minnesota School of Dentistry. Stipends for these appointments range from $1200 to $3600 per year and include tuition exemption. Graduate study programs may be arranged with a major in Ortho-

dontics, Oral Pathology, Oral Surgery, Oral Medicine (including Periodontia), or Restorative Dentistry (Operative, Prosthetics, Pedodontics, or Endodontia.) The courses in these areas vary in length from two to three years. An alternate program, in the basic sciences with special reference to dentistry, leads to the Ph.D. degree.

Persons interested should write to the Dean of the Graduate School, University of Minnesota, Minneapolis 14, Minnesota.

* * *

At their meeting of April 21st, E. Carl Miller, retiring president of the Cleveland Branch of our Ohio Unit presented to Dr. Chauncey W. Wyckoff, M.D. of Cleveland, a certificate of honorary membership, in recognition of his contributions and cooperation toward a closer relationship between pediatrics and dentistry for children in Ohio.

* * *

Several Fellowships which offer opportunity for graduate study and teaching experience are available at Northwestern University Dental School for recent dental graduates. The Fellowship in Pedodontia may be a teaching fellowship or a Residency at Children's Memorial Hospital.

Teaching Fellows will be assigned as instructors approximately half time and will take graduate courses and do research the remaining time. They will receive a stipend of $150.00 a month and will be furnished free tuition for graduate study. Single men may live in Abbott Hall, the University dormitory.

The Residents at Children's Memorial Hospital are furnished board and room and $60.00 a month. Their service is primarily to children in the well organized Dental Department, but they have access to other training experience including cleft palate care, and are allowed time to take the graduate course part time.

The degree of Master of Science in Dentistry in the field selected may be earned in two years on these Fellowships. Applicants must present an academic record satisfactory to the Graduate School for appointment. For further information address The Dean, Northwestern University Dental School, 311 East Chicago Avenue, Chicago 11, Ill.

* * *

The College of Physicians and Surgeons (A School of Dentistry) will offer eight (8) refresher courses in Dentistry for Children during the academic year 1951–1952.

These will be offered at the Dental College, 344—14th Street, San Francisco, California, and are designed to meet the need of practicing dentists to better understand the child patient, refresher operative technics, review recent developments of caries control, anesthesia, pulp therapy, cavity preparation and restorations for primary and young permanent teeth.

Any ethical dentist is eligible for enrollment by communicating with the Dean of the College. The number of registrants for each class is limited to ten (10).

The tuition for the course is $85.00. The college provides all facilities and supplies.

Each course will be for a period of eight (8) days, Monday through Friday and the succeeding Monday through Wednesday from 8:30 A.M. to 5:30 P.M., the following dates:

October 1–10, 1951
October 29–November 7, 1951
December 10–18, 1951
January 7–16, 1952
February 25–March 5, 1952
April 1–9, 1952

May 5–14, 1952
June 2–11, 1952

Also offered will be 8 Refresher Courses in Tooth Guidance, designed to enable practicing dentists to better understand the child patient, review the recent developments of caries control, refresh the participant in impression taking and model making for recording the child's growth and development, diagnose and construct appliances to maintain space, study the etiology of malocclusion, construct mechanical appliances to assist the patient to discontinue pernicious habits, to move a tooth or teeth from an abnormal to a normal alignment, study tooth material as compared to available medullary and alveolar bone to support the teeth, and to fabricate labial and lingual arches on models.

Each course will be for a period of six (6) days, Monday through Saturday, from 8:30 A.M. to 5:30 P.M., the following dates:

September 24–29, 1951
November 26–December 1, 1951
January 21–26, 1952
May 19–26, 1952

September 22–27, 1952
November 17–22, 1952
January 19–24, 1953
May 18–23, 1953

President Hugo Kulstad appeared as speaker on the Children's Dental Health Day program of the District of Columbia Dental Society on Monday February 8. 300 enthusiastic members greeted our Hugo and judging from the publicity the Day received on the radio, T.V. and in the press, he did his usual excellent job!

* * *

The Spring Alumni Day program of N. Y. U. College of Dentistry, April 13, 1951 gave visible evidence of the activity of members of our New York Unit in the presentation of clinics of interest. The subject material ranged from diagnosis to anesthesia, all pertaining to dentistry for children, and the following men participated: Doctors Lenchner, M. Bellet, H. Klein, J. Gary, Ralph Fusco, Sid Kronfeld, Hal Addelston, M. Valentino, A. Cannistraci, I. Samuels, A. Kobren, A. J. Ackerman, J. Keller, I. Gelston, N. Feitelson and members of the Orthodontic staff of the school.

* * *

Editor Al Seyler and wife Louise, plan to spend several weeks in Europe this Summer, sightseeing most of the time, with a few days of work for Al, scheduled to speak before the American Dental Society of Europe at Lausanne, Switzerland, in August.

A Psychological Approach to Local Anesthesia For Children

JASON R. LEWIS, D.D.S.
*Richmond, Virginia**

Editor's note:

Jason R. Lewis, a newcomer to our Journal, is a graduate of the University of Maryland School of Dentistry, 1942. After a year of interneship at Worcester Hospital, followed by 3 years of service in the Army, he entered private practice at Richmond, Virginia, limiting his efforts to pedodontics. Married and father of one boy, Dr. Lewis is an instructor in pedodontics at the Medical College of Virginia.

The accompanying article, which was presented at the Atlantic City Meeting, is the author's conception of how to eliminate what is often a difficult phase of dentistry for children, and even though ye Ed may differ with his approach to the child, it is another technic which may work well in your hands.

A.E.S.

THE PURPOSE of this paper is to acquaint the practitioner with a psychological technique in the use of local anesthesia for children. It has been used and tested in my office for the past four years with remarkable success. Local anesthesia has been obtained, and dental operations performed, where in previous intances it had been a dreadful experience for the child patient, the parent, and the dentist.

It is well apparent that the children of today are a "needle conscious" generation. Present day dental and medical treatment involve a multitude of uses for the needle syringe. Indiscriminate use of this type of treatment by the professions has made many children sincerely dread visits to dental and medical practitioners. This fear can be alleviated, and in most instances eradicated, by use of proper armamentarium in conjunction with planned "common sense" psychology.

THE ARMAMENTARIUM

The value of the psychological technique will be enhanced if the proper armamentarium is available. A brief description is as follows.

1. The syringe should be of the non-breakable metal type which holds the 1 cc carpule, commonly known as the *midget syringe*. Glass syringes may break and their manipulation is more difficult.
2. The use of 26, 28, or 30 gauge needles is suggested.
3. Procaine 4%, Monocaine 1½%, or 2% ME Monocaine can be secured in 1 cc carpules. In the case of infiltration anesthesia the 4% procaine or 2% ME Monocaine is preferred.

In the greater percentage of cases the use of a topical anesthesia has been eliminated because of the burning or stinging sensation which the child patient experiences. Any signal between the operator and dental assistant which might indicate to the child that an injection with the needle is in the offing, should be eliminated. Any office routine which may recall

* Instructor in Pedodontics, School of Dentistry, Medical College of Virginia.

to the child previous injections, should also be eliminated. Varied approaches should be used for the same child on different visits so that the patient can be distracted from dental procedures more easily.

It should be remembered that in certain instances a topical anesthetic will be of considerable help in the management of the patient.

FIGURE 1

COMMON SENSE PSYCHOLOGY

The central theme of this technique revolves around the three wise monkeys who

(1) Speak no needle
(2) Hear no needle
(3) See no needle

It is quite understandable that the mention of various words in a dental office will touch off a spark of fear which may burst into calamitous uprising. Consequently, every dentist, wherever and whenever possible should avoid the words needle, jab, prick, blood, et cetera. For example, to bypass such complications the author uses a code phrase as MH strong (2% ME monocaine), or PR weak (2% procaine) and T. A. (topical anesthetic). The elimination of objectionable words in the dental office will prove a decided advantage in the handling of children, and if you "speak no needle", a child will "hear no needle".

The next phase in this "common sense" psychology is to keep the needle syringe

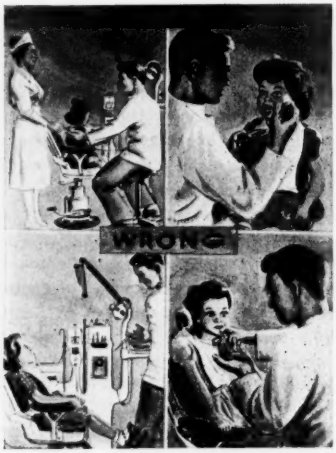

FIGURE 2

or any objectionable objects out of sight. Forceps, bone chisels, shiny steel scalpels and other instruments of unfavorable appearance should not be put on display. Every effort should be made to make the operating room a pleasant memory in the mind of the child.

The "see no needle" phase is the most important part of the psychological technique. Diverting the child's mind from the operation to be performed will help in the elimination of fear and aid the dentist in administering the local anesthetic. The procedure is as follows:

1. The child is told to rinse his mouth.

This is used to divert his attention from the dentist.

2. The dental nurse who is standing to the right and rear of the dental chair hands the midget syringe to the dentist who cradles it in the palm of his hand ready for insertion.
3. The selected site for injection is held taut by one hand while the dentist administers the local anesthetic with the midget syringe concealed in the palm of his other hand. The tissue should be pulled on to the needle and contents of the syringe emptied with moderate speed. The variation from the adult technique of administration is slight.
4. Immediately after removal of the concealed syringe from the mouth, the child is told to "spit" in the basin. This provides distraction from any pain or discomfort which he has encountered, and with a few encouraging pats on the back, the child sits back in the chair at ease.
5. It is now advisable to tell the young patient that he will experience a numb sensation, and in the case of a mandibular injection, he is cautioned against biting his lip.

The combination of syringe concealment and diverting the child's attention from the actual operation will make easier dentistry both for child and dentist.

Discussion

Emphasis must be placed on the fact that this technique is most successful with children under the age of eight. It can be used successfully with older children, but the approach should vary in accordance with the personality type. If the child will listen to reason, each step of the administration of a local anesthetic may be explained beforehand. In these instances a topical anesthetic will be of value.

Trouble can be expected from the uncooperative child who may be frightened, unruly, or of bad behavior. Strong sedation is advised in these cases where the dentist must survey and carefully plan his method of approach and treatment.

Distinct advantages to the dentist will be speed and efficiency in the handling of children which increases with experience. Many children have become poor dental patients through the indecisiveness and prolongation of treatment by their dentist. A *definite plan of treatment* coupled with *understanding* and *encouragement* of the young patient will go a long way in the administration of dental services.

A crying patient is a severe trial on the nerves of the dentist and is the cause of much failure in the treatment of children.

Conclusions

The technique described here can be modified to suit the individual needs. It is simple and efficient, and with constant use, pedodontic problems can be easily conquered. Local anesthetics properly administered will eliminate pain and fear from the young patient. The psychological value of such treatment will increase the pleasure of treating children and enhance the interest in easier and better dentistry. What could be more gratifying to the dentist than to hear the young patient exclaim, "Gee Mom! He took my tooth out and I didn't feel it. No needle either."

1111 West Franklin Street

Unit News

Editor's Note:

If news of your Unit is not listed, contact the correspondent or officials of your group and ask why. Your editor will be grateful for news he receives and can publish.

MEL NOONAN
Birmingham, Michigan

IOWA

The organizational meeting of the Iowa Society of Dentistry for Children was held on December 14 at the College of Dentistry in Iowa City. In spite of very bad weather, thirty Iowa members were in attendance. The following officers were elected:

Dr. Robert Leighton, Iowa City—*President*
Dr. Glenn Miller, Waterloo—*Vice-president*
Dr. Elmer C. Prall, Mt. Vernon—*Secretary-treasurer*

The above men plus Dr. M. A. Delchow of Maquoketa and Dr. James Devaney of Cascade, were named as the Board of Directors.

The program of the professional sessions was as follows:

Economics of Children's Dentistry, Dr. Glenn Miller, Waterloo
Habit Patterns & Distortion of Facial Structures, Dr. L. B. Higley, Iowa City
Stainless Steel Crown Technics, Dr. F. T. Plass, Dubuque
General Anesthesia in the Practice of Dentistry for Children, Dr. Kenneth Wessels, Iowa City

Plans are now being formulated for the next meeting of the group, to be held at the time of the Iowa State Dental Society meeting in Des Moines, next May.

MICHIGAN

Under the able leadership of Dr. Sam Stulberg, the program committee is enjoying its most successful year.

The December meeting was a great triumph with Dr. S. Irwin Shaw, author of "Hypnotism Can Help" speaking on the subject of "Suggestion and the Child Patient".

The March meeting will be held in Ann Arbor and the program will be a panel discussion on "Growth and Development as Related to Dentistry for Children."

Moderator:.....William E. Brown, Jr.
Panel Members:
Dr. Gerald V. Barrow—*Orthodontist*
Dr. Byron O. Hughes—*Assoc. Prof. of Child Development*
Dr. George H. Lowrey—*Pediatrician*
Dr. Willard C. Olson—*Prof. of Education and Psychology, Director of Research in Child Development*

PENNSYLVANIA

The P. S. D. C. is trying honestly to make their organization a state affair. Previous meetings always had been held in Philadelphia but they are making plans to hold their annual meeting in Pittsburgh in conjunction with the state society meeting. This will allow more members to benefit from the excellent programs offered.

WISCONSIN

There will be a meeting for the purpose of organizing a Wisconsin unit of the

A. S. D. C. in Plankinton Hall during the state meeting Thursday, March 29, 1951 at 11:50 A.M. Dr. Hugo Kulstad, the president, has delegated Dr. Walter C. McBride to explain the purpose and details of the organization. Walter McBride will be in Wisconsin to lecture before the state society.

New York

The New York unit reports a very successful Mid-Winter meeting which was held on Sunday, December 3, 1950. The morning was devoted to the business meeting.

The scientific session was held in the afternoon. Dr. Solomon N. Rosenstein, of Columbia University was the moderator of a symposium entitled "The Third Molar Problem as Related to Dentistry for Children." The speakers were Dr. James Jay, Columbia University, Orthodontist; Dr. Eugene J. North, University of Buffalo, Pedodontist; and Dr. Stanley L. Lane, Columbia University, Oral Surgeon.

Following the symposium five splendid table clinics were given.

After the meeting the society was pleased with the "feather" it had added to its "educational hat."

New Jersey

A meeting was held at the Walt Whitman Hotel, Camden, N. J. on January 10th.

Clinics on all phases of pedodontics were held from 2 to 5 p.m. followed by a dinner. The guest speaker was Dean Timmons of Temple University. There were 75 members and guests registered.

A membership campaign is being started again this year.

Plans are being formed to hold our Annual Meeting during April in Atlantic City.

Northern California

On Tuesday, December 5th, Charles A. Sweet, Sr., D.D.S., spoke at the Winter Meeting of the Northern California Chapter of the American Society of Dentistry for Children. His topic, "A Resume of Pulpal Therapy", was informative and far more absorbing than the title would imply.

During the meeting, the Nominating Committee composed of Doctors Ralph Wagner, Carl Ellertson, Jr , and Francis Bushnell, presented a list of candidates. The list was approved unanimously, and the new officers are as follows:

President: Kenneth McKinnon, D.D.S.
President Elect: Charles A. Sweet, Jr., D.D.S.
Vice President: John Sowden, D.D.S.
Secretary-Treasurer: Lawrence McClaskey, D.D.S.
Editor: Edward S. Mack, D.D.S.
Public Relations: Sam Brown, D.D.S., 1951
Bernard Smith, D.D.S., 1952
Francis Bushnell, D.D.S., 1953
Director for ? years: Ray Curtner, D.D.S.

Membership Committee

Chairman: S. Heywood Norton, D.D.S., 1951
Walter Mandler, D.D.S., 1952
Lynn Rudee, D.D.S., 1953
Ex Officio Member of Membership Committee: John Sowden, D.D.S.

Wednesday, March 28th, an excellent panel discussion was given before the Spring Meeting.

The topic "What the Dentist Taking Care of Children Should Know", proved

fascinating, and there was much that could be taken away and used.

The panel consisted of Doctor Hugo Kulstad, as Moderator, and the following speakers:

Dr. Erwin Beechen
Dr. Karl Ellertson, Jr.
Dr. John Hughes
Dr. John Tocchini

The speakers of the evening described pedodontics and its total scope with unusual clarity. Information was given to aid those dentists who hoped some day to take the examination of the American Board of Pedodontics. The speakers, and the moderator, were well qualified for the discussion as each of them has been certified by the American Board of Pedodontics.

It is to be hoped to continue to have meetings on such a high plane and to maintain such a high degree of interest.

Alabama

On Monday, February 5, President Harry Boblasky of the Alabama Unit presided over the Children's Dental Health Day Meeting sponsored by his Unit at Birmingham. Dr. Ferdinand F. Schwartz, of the Medical College of Alabama presented an excellent paper on "The Cerebral Palsy Child in the Light of Dentistry." Dr. Schwartz illustrated his talk with some fine movies and slides and comments after the meeting indicated his topic was one of interest.

Orland Rice, Secretary of the Unit, reported a very gratifying number in attendance.

Southern California

The Southern California Unit of American Society of Dentistry for Children has been extremely active this year, and now boasts of a membership close to two hundred.

Dr. McNulty, the new Dean of the U. S. C. College of Dentistry, gave an enthusiastic talk on dental education for the opening September meeting. Dr. Beechen, President of the Northern California Unit of the American Society of Dentistry for Children gave an impressing talk about "Prosthodontics for Children" in October. In November, Dr. Humphrey from Denver, Colorado, gave an inspiring talk on "Use of Chrome Steel Alloy in Childrens' Dentistry."

The American Society of Dentistry for Children, the Beverly Hills Academy of Dentistry, the Wilshire Academy of Dentistry, and the Hollywood Dental Society, held a joint meeting in January, at which Dr. Wm. Wainwright, Professor of Radiology and Head of the Department at the University of Illinois College of Dentistry, was the principal speaker. He gave an epoch-making speech on the "Dental Applications of Atomic Energy."

The Southern California Unit of the American Society of Dentistry for Children under the capable leadership of Dr. A. L. Everett, President, Dr. George Higue, Vice-president, and Dr. Stewart Anderson, Secretary-Treasurer, has been very successful.

The Nasal Septum and Factors in Open-Bite Malocclusion

JAMES W. DECKER, D.D.S.
Los Angeles, California

Editor's note:

Jim Decker is a graduate of University of Southern California School of Dentistry, 1948, and has taught at his Alma Mater. Married, with two pretty girl children, neither of whom has any restorations or cavities, he is practicing general dentistry in downtown Los Angeles, but children form a goodly portion of his practice.

This paper is one which discusses a subject about which we read very little—it was very interesting to us—and we hope you'll like it, too.

A.E.S.

ALL OF US have seen tragic cases where mouth breathing has been an etiologic factor in a serious malocclusion. For an adult, the correction of an open bite is many times a compromise measure at best, so it is much more satisfactory to provide early diagnosis and treatment for our younger patients. To this end, we should be familiar with some pathologic conditions of the nasal septum which may lead to mouth breathing.

Pathology of the septum may be outlined as follows:

A. Total or partial absence of septal tissue
   1. Congenital
   2. Traumatic
   3. Resulting from disease
B. Deviations
   1. Location
      a. In cartilage
      b. In cartilage and bone
      c. In bone
   2. Shape
      a. Vertical
      b. Horizontal
      c. Oblique
      d. Sigmoid ("S" shaped)
      e. Convex (curved)
C. Subluxations and dislocations
D. Fractures
E. Exostoses (bony overgrowths)
F. Ecchondroses (cartilaginous overgrowths)
G. Hyperemia
H. Infections
I. Hematoma
J. Epistaxis
K. Choanal atresia (absence of normal opening, posteriorly)

Total or Partial Absence of Septal Tissue

In the examination of the patient gross septal changes are easily noted with the lack of symmetry being the main clinical symptom. A partial or full closure on one side is at times compensated for by hypertrophy of the opposite side. An easy way to check this is to hold a plain piece of paper to the midline to cover half of the face at a time. When the area of the defect is located, light palpation will often reveal a hard lump, spur of bone or other deformation. Careful questioning will often reveal when and how the area was deformed. Some people will state they can breathe normally, but since mouth breathers tend to moisten their lips excessively leading to dry cracking skin

and hyperkeratosis, this gives a clue to the true state of things. The patients and their parents should be questioned carefully in regard to early eating habits; whether they were able to nurse or take a bottle without difficulty; history of trauma; sleeping with the mouth open; snoring; thumb sucking and leaning habits. Some of these habits tend to contract the vault which often forces the septum to the side with a partial obstruction.

Adenoids in childhood lead to a characteristic mouth breathing with subsequent attacks of acute rhinitis. The inflammation usually settles down to a chronic condition in which the membranes are engorged and hypertrophied with or without the formation of typical nasal polyps which may cause a partial or complete obstruction. In the presence of this chronic infection, trauma or lowered resistance may lead to a septal abscess, characterized by marked rubor and edema, with tenderness to external palpation. It is usually unilateral with painful swelling. Trauma or picking will result in a flow of bloody pus. It may point and drain spontaneously, but in any case, requires medical attention.

Exostoses and Ecchondroses

Overgrowths of bone and cartilage fall into three classifications. First, those conditions which are the result of faulty development in early life. Second, those which are the result of repair processes after trauma and, lastly, those which are malignant processes. Lymphosarcoma is the most frequent malignant tumor found in children and young people and is most common in this area. As this condition may be fatal and the dentist has a chance to see most patients twice a year, he is in the position to suggest a medical check of this area when something is suspicious.

The repair processes after trauma take a number of forms. A septum deviated by a blow may undergo perforation or increased calcification which holds it in its deviated form. In the area where the cartilage and bone join, a disturbance may result in either an overgrowth of bone or of cartilage or both. These spurs may obstruct the passage and removal is usually indicated.

Hyperemia

Hyperemia is a very common condition of septal tissues. The mucosa is thick and very vascular, with areas of erectile tissue and numerous cells which secrete mucin. When the mucosa is irritated all of these tissues react. The mucous is secreted excessively; the erectile tissue becomes engorged with blood and the mucosa becomes inflamed. Some authors estimate that only 50% of the people have full use of both nasal passages during the hours of sleep. The factors being, increased blood supply to the head when reclining and the lack of clearing action. This results in partial or full obstruction of the lower passage when sleeping on the side.

Hematoma and Epistaxis

The forward portion of the cartilaginous septum has a very rich plexus of blood vessels (Little's area formed by the anastomosis of the descending palatine artery and branches of the sphenopalatine artery). This anatomical factor sometimes enters into or is connected with the etiology of two possible pathological conditions, septal hematoma and epistaxis. The septal hematoma is largely due to trauma or operative procedures in this area. A blow on the front of the nose has a tendency to separate the two walls of cartilage or its lining membrane and allow an effusion of blood between them. The resultant hematoma is an enlarged,

smooth, red glossy mass which bleeds very easily and may occlude the normal passages. Cold applications may aid in the resorption of the mass or operative procedures may have to be used.

Epistaxis is a problem, particularly in children. Once nose bleed has been induced a crusting or clot forms; this in itself is irritating and may be further irritated by dust, bacteria, pollens, gases which lead to nose picking (epistaxis digitorum) and bleeding. This gives rise to loss of the mucosa and in prolonged cases, perforation of the cartilage results. Continued irritation, picking, clotting, and crusting takes place at the edges of the perforation. It is a common condition for the clot and debris to occlude the passage at night and be blown out or removed upon waking. Careful questioning will reveal this condition which is a medical problem to correct.

Choanal Atresia

Choanal atresia is the absence of the normal posterior opening. It may be fully or partially blocked with either bone or membrane. In the infant, signs of this condition are nasal obstruction with difficult breathing and cyanosis in the prone position. Complete atresia is usually found by the obstetrician or the pediatrician but partial closing is more difficult to discover. The tissue about such areas is unhealthy and hypertrophic, and chronic infection of this unhealthy tissue results in further occlusion of the partial opening. In this condition it may be possible for the patient to get enough air through the nose when relaxed but when exercising or excited the mouth has to be used to get sufficient volume of air.

The majority of dentists are trying to be as helpful to their patients as possible and through careful observation and questioning can often note nasal obstructions which, when corrected, may give the dental arch a much better chance of proper formation. The intelligent physician and patient will deeply appreciate the suggestion of an examination in this field.

609 S. Grand Ave.—Rm. 516

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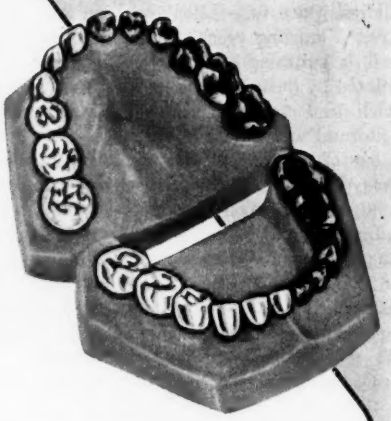

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An Engineer's Evaluation of Class II Cavity Preparations for Silver Amalgam Restorations in Primary Teeth*

WALTER F. WEILAND
Lincoln, Nebraska

THIS discussion will dwell upon the two more important phases of engineering involved in the art of cavity preparation and amalgam restorations, namely that of powder metallurgy and that of mechanics. Powder metallurgy has to do with the alloys used for fillings and with the preparation of the filling. Mechanics has to do with the forces involved to produce sound fillings, the forces on the cavity structure and the final strength of the restoration.

The field of powder metallurgy has received a great deal of attention in recent years, and rightly so. It has been labeled a new field, but fundamentally it is not new; it is only the techniques and applications that are new. Applications are to be found not alone in the field of pure engineering, for the principles are used in gilding milady's slippers, and have long been used in preparation of gold foil and amalgam restorations in Dentistry.

Basically, powder metallurgy is a low temperature welding process. Clean metal powders are squeezed together under pressure, with or without the application of heat, and with or without the use of a binder. The powders may be squeezed into a cavity or mold under steady pressure, they may be compacted under impact or vibrating pressures, or they may be sprayed at very high velocity onto a metallic or non-metallic surface.

Welding as it is ordinarily understood implies either actual melting of the materials to be joined in order to obtain atomic contact, or raising the temperature of the parts to the plastic state so that atomic contact may be obtained by the application of relatively low pressures. But if the metal is in fine powder form, atomic contact is accomplished with moderate to high pressures and with temperatures far below the melting or the plastic state.

Finished precision parts may be produced without subsequent and expensive machining and finishing operations. Clean metallic powders of most of the important metals and many alloys are now produced. It has been possible to join metals of widely different melting points such as tungsten and copper, and to unite metals and non-metals such as graphite impregnated bronzes for bearings, and to press and sinter the very hard carbides of tungsten, tantalum, and molybdenum and others for the finest and hardest cutting and drilling tools.

With some metals such as gold, pressure only is required to bring about atomic contact. With others some heat is required along with pressure to bring about a bond between particles. In other instances such as amalgams, a low melting temperature metal serves as a binder and alloying element between high melting temperature metal particles. However in all instances pressure is required to

* Read before the American Academy of Pedodontics, June 1950.

force the metal particles into all intricate corners of the mold, to obtain atomic contact between particles, and to control or reduce voids. The pressure and temperature may be sufficient to produce a homogeneous product of high strength, or they may be controlled to produce porosity in bearings which are to retain a certain amount of lubricating oil and guard against complete failure of a lubricating system.

The starting point for silver amalgams is clean, fine silver alloy particles carefully protected from oxidation and handling. This is mixed with a binder, namely mercury, which in serving as a binder actually alloys with the silver, and thus serves as a glue to hold the particles of silver alloy together. The impact pressure applied with the vibrator is much more effective for this work than slow and steady pressure application.

As the silver amalgam flows in all directions under impact pressure, these impact forces will be transmitted throughout the amalgam in all directions just as pressure is transmitted equally in all directions in a liquid. It is therefore necessary to consider the importance of impact forces in producing a sound, well alloyed restoration, the effect of these impact forces on the surrounding tooth structure, and finally the effect of biting forces on the hardened restoration and the cavity structure.

The impact forces during the filling process must be large enough to produce good alloying and bonding between metal particles, and thus form a porous-free material which has been made to flow into all intricate corners of the cavity. On the other hand these forces must not be so severe that damage to the tooth structure will follow. The residual internal stresses in the tooth structure and in the filling must be a minimum, because external biting forces will simply add onto the residual internal stresses and cause mechanical failure of the tooth or the filling. Residual internal stresses which do not finally eliminate or neutralize themselves are very likely to cause trouble at the points of stress. This will be very true if undue concentration or localization of stress occurs. The tooth or the filling will finally fail due to fatigue, or chemical, or even biological degeneration at these areas of stress concentration.

Porosity of the filling will also be a source of trouble, because the points of porosity will be regions of discontinuity of structure and therefore points of stress concentration with the same final degeneration as indicated above. Porosity between the tooth material and the metal is especially undesirable as it inevitably leads to decay.

The principal aims therefore are to produce a cavity structure which will withstand the impact forces during the filling operation, to produce a sound filling, and finally to have a completed structure which will withstand the biting forces more or less indefinitely.

The principles of mechanics which are involved in the preparation of a cavity structure of maximum strength may now be examined. It is well known that a piece of wire can be readily broken if it is first nicked with a file and then bent back and forth a few times. The nick in the wire is a sharp corner at which there will be a very high concentration of stress, perhaps six to ten times as great as the stress in any other part of the wire. The stress at the sharp corner may be well above the breaking point of the material although the stress at other points may be well below the yield point. A crack begins to form at the nick upon first application of the external force, and grows upon each successive application, until finally the crack has spread to such an extent that complete failure occurs. Theoretically at

a mathematically sharp corner which would be formed by the intersection of two lines, the stress is infinite; if the corner is a well rounded one with generous fillets the stress may be only slightly more than normal.

A sharp corner in the interior of the wire, such as would occur at a slag inclusion, or a void in the interior of a filling, behaves in exactly in the same manner as the file mark on the surface.

The same line of reasoning applies to a sharp corner formed by the intersection of two cavity surfaces, whether it be an inside or outside corner. Stresses will be abnormally high at these points during the filling operation and later during biting, so much so that a crack may develop at these corners either in the filling or in the tooth itself.

Now if both inside and outside intersections between adjacent planes are well rounded with a suitable bur, the stress concentrations are greatly reduced, cavity dimensions otherwise remaining the same. Impact pressures may actually be increased without damage to the cavity structure, a sounder filling is to be expected, residual stresses in the filling and the tooth structure will be lower, and masticating forces will produce lower stresses.

The space occupied by unalloyed liquid mercury which remains in the restoration comes under the same classification as an internal void at which stress concentration will be high. With proper cavity design which leads to more uniform pressure penetration, the excesses of mercury will be more easily forced from the amalgam.

Expansion or contraction of the filling during the hardening stage is another source of trouble. Expansion will introduce additional residual internal stresses in the restoration as well as in the tooth structure, to which the biting stresses must be added. Generous fillets help to reduce these stresses. Contraction of the filling will tend to cause separation from the cavity walls with the usual troubles.

A liquid or semi-liquid metal under pressure cannot be made to flow completely into a sharp corner, especially if the metal does not wet the cavity surfaces. The surface tension of the amalgam causes it to form small spheres. The smaller the spheres the greater the surface tension. The greater the surface tension, the greater the impact forces required to break the spheres into still smaller spheres which will fit into the sharp corners. Obviously it is impractical to increase the impact forces without limit to accomplish this result. It is much simpler to use generous fillets in all corners.

Perhaps the most difficult situation in an amalgam filling is the inside sharp corner of the restoration at the approximal box. In the occlusal step, flow of the metal during the filling operation is horizontally out over this edge of the cavity. Flow in the approximal box is vertically over the same corner. The two flows meet and tear at each other at an angle of 45 degrees, upward and outward. Application of the impact hammer at 45 degrees toward this corner simply aggravates the already bad situation. Complete separation of the two flows may be expected with the result that a very poor bond between the occlusal step and approximal box may be a fact. If no actual separation occurs the least that can be expected is a very severe concentration of stress at this 45 degree line. A simple solution to minimize this unusually bad situation is a generous rounding of this portion of the cavity with a maximum possible radius. Then as the amalgam is imbedded, the impact hammer is held normally to the cavity surface at all

times. This procedure should then produce a sound filling in which residual stresses will be a minimum, and in which stress concentration during mastication is a minimum.

A study of the detailed mechanics of cavity preparation and amalgam restoration is not complete without a brief picture of the overall problems involved as they pertain to the finished structure. These may be recapitulated briefly in question form:

1. Is the biting pressure distributed uniformly through the filling to the tooth over a large area?

2. As the filling is being deflected under pressure does the tooth deflect with it, or is the tooth structure so rigid or is the filling so flexible that stresses will be highly localized in the tooth or in the filling?

3. Are there any possible points which may behave as sharp corners at which stress concentrations will be abnormal?

4. Is the filling free of voids at which stresses may be concentrated?

5. Are there any possible points at which separation of filling and tooth may occur during mastication?

6. Are stresses in the filling likely to be high enough to cause permanent deformation of the filling and thus bring about separation of the filling and cavity surfaces?

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THE CONSTITUTION AND BY-LAWS*
of the
American Society of Dentistry for Children

THE CONSTITUTION

Article I

NAME

The name of this Society shall be THE AMERICAN SOCIETY OF DENTISTRY FOR CHILDREN.

Article II

PURPOSE

The purpose of this Society shall be the advancement and dissemination to the profession and the public of knowledge of all phases of Dentistry for Children.

Article III

MEMBERSHIP

Section 1. Membership in this Society shall be of five classes: active, associate, student, honorary and honorary associate. Only active members may vote and hold office.

Section 2. ACTIVE membership in the Society shall be limited to members of the American and Canadian Dental Associations.

Section 3. ASSOCIATE members may be elected by the State Units or by the Society and shall be designated as those working in related fields or as dental internes in recognized institutions.

Section 4. STUDENT MEMBERSHIP: those Seniors of an accredited dental school who hold student membership in the American Dental Association may be elected by the State Units or by the Society.

Section 5. HONORARY membership may be conferred by the Society on any person who has contributed in an exceptional manner to the advancement of Child Health.

Section 6. Honorary associate may be conferred by the Society on members of Foreign Societies of Dentistry for Children.

Article IV

STATE UNITS

Section 1. State Units or Societies which may be organized in conformity with the general plan and purpose of this Society shall be enrolled as component Units by a majority vote of the Executive Council upon receipt of an application for affiliation. Classification of membership in component Units shall be the same as that of this Society.

Section 2. State Units must have a minimum of 20 active members. Where less than 20, the members shall be considered members of the Society at large.

Section 3. State Units shall send an official delegate or representative to each annual meeting of the Society. One delegate shall be sent to represent each 50 members or fractional number thereof.

* As amended October 29, 1950.

Section 4. There shall be one official state Unit for each constituent of the A. D. A. but each Unit may have several component groups where desirable and organized under the guidance of the constituent Unit. They should meet jointly as a constituent Unit at the annual state meeting.

Section 5. There shall be a meeting of the Executive Council together with the delegates representing the State Units at a time prior to the annual meeting of the Society. This meeting shall be presided over by the President-Elect and its purpose shall be the discussion of matters relating to the organization, programs and activities of the State Units. This body may offer such resolutions to the Executive Council or to the Society as it deems advisable.

Article V

OFFICERS

The officers of this Society shall be a President, a President-Elect, a Vice-President, a Secretary-Treasurer, and an Editor.

Article VI

EXECUTIVE COUNCIL

There shall be an Executive Council, consisting of eleven members, with authority to govern the Society in all matters between annual meetings.

Article VII

MEETINGS

Section 1. An annual meeting of the Society shall be held at the time and place of the meeting of the American Dental Association. The exact time and place shall be specified at least three months before the annual meeting.

Section 2. Special meetings of the Society may be called; (1) by the President at the written request of twenty per cent of the active membership; (2) by the unanimous vote of the Executive Council together with a majority vote of the delegates from the State Units.

Article VIII

QUORUM

At a regularly called meeting of the Executive Council, General Business Session, or a Committee Meeting, those present shall constitute a quorum.

Article IX

OFFICIAL PUBLICATION

The Society shall publish a Journal to be known as the "Journal of Dentistry for Children" which shall be the official publication of the Society, and shall be published quarterly.

Article X

AMENDMENTS

Section 1. This constitution may be amended at any official meeting of the Society by a two-thirds majority vote of all active members present, provided a copy of such proposed change has been sent to each member at least four weeks prior to such meeting.

Section 2. Amendments may also be made at any annual meeting of the Society by the unanimous vote of all active members present and voting.

Section 3. By-laws and standing rules may be adopted, amended, or repealed at any official or annual meeting of the Society by a two-thirds majority vote of active members present and voting.

THE BY-LAWS

Article I

MEMBERSHIP

Section 1. All applications for active, associate, and student membership shall be made in writing. When submitted to the Secretary and accompanied by the annual dues applicants automatically become members in the designated class.

Section 2. In States having active Units, membership in the State Unit is contingent upon membership in the American Society of Dentistry for Children.

Section 3. The name of a candidate for honorary membership shall be presented, with reasons therefore in writing, to the Membership Committee. The Membership Committee shall present this with its recommendations to the Executive Council, and, upon the unanimous approval of the Executive Council, the candidate's name shall be presented to the membership at the next annual meeting. The approval of two-thirds of the active members present and voting shall elect the candidate to honorary membership. Upon his election, he shall be presented a certificate of election.

Section 4. Honorary associate membership may be conferred by the Executive Council upon members of Societies of Dentistry for Children of foreign countries when such societies are organized in conformity with the general purpose of the American Society.

Article II

DUES

Section 1. Dues for active members shall be five dollars per year, payable the first day of January. Each State Unit shall pay, on or before April 1, five dollars to the Secretary-Treasurer of this Society for each active member.

Section 2. Honorary members shall not be required to pay dues, and shall be granted all the privileges of membership with the exception of voting and holding office.

Section 3. Dues for associate members and student members shall be two dollars per year, payable the first day of January or through each State Unit on or before April 1.

Section 4. Dues for honorary associate members shall be two dollars per year, payable on January 1st of each year.

Section 5. Any member, not a member of a component Unit, who becomes delinquent in the payment of his dues shall be notified by the Secretary at the end of sixty days. Should he continue to be delinquent for thirty days thereafter, his membership shall be declared forfeited.

Section 6. Dues of new members paid during the last quarter of the year shall apply as of January 1st following.

Section 7. A proportionate amount of dues of each paying member shall be designated by the Executive Council as a subscription to the Journal of Dentistry for Children entitling him to receive this publication.

Article III

ELECTION OF OFFICERS

Section 1. (a) All officers except the Editor shall be elected by ballot at the annual meeting, their names having been placed in nomination either by the Nominating Committee or from

the floor, and shall assume office at the close of that meeting. (b) The Editor shall be appointed by the Executive Council.

Section 2. No member of the Society shall be eligible for office who has not been a member of the Society for at least three years, but this rule shall not apply to election to committees.

Section 3. No member shall hold the same office twice in succession, except the Secretary-Treasurer and the Editor. The filling of an unexpired term shall, in this regard, be considered a term of office.

Section 4. Permanent or temporary vacancies occurring in office between the election and the next meeting shall be filled by the President for the unexpired term of that office.

Article IV

COMMITTEES OR COMMISSIONS

Section 1. Members of the following standing committees or commissions of five members each shall be elected by the Executive Council: Membership and State Units, Public Relations, Professional Relations, School and Dental Examining Boards and Community Dental Programs. They are to be elected in the following manner: one for one year, one for two years, one for three years, one for four years, and one for five years, and thereafter *the President* shall appoint one each year for a term of five years. It shall be the duty of the President to designate the chairman of each standing committee, with the exception of the Membership and State Units Committee, the chairman of which shall be the President-Elect.

It shall be the duty of each standing committee to submit to the President, within four months after the annual meeting, a full report of its activities. If such report, or absence of a report, indicates that a committee is not adequately functioning, it shall be mandatory for the President to replace any or all members of such committee as circumstances may indicate necessary to activate it. It shall be the duty of each chairman to present in writing a report of his committee activities to the Executive Council at each annual meeting.

The duties of the Committees shall be as follows:

Membership and State Units: To increase the membership of the Society; to organize new State Units and to assist State Units in their activities and the increasing of their membership. To receive all recommendations for honorary and honorary associate membership and make appropriate recommendations to the Executive Council.

Public Relations and Publicity Committee: To foster cooperation of Society and lay groups organized for the promotion of child health; to give proper notices to the newspapers and other publications where publicity is desired; to assist the proper committee of the American Dental Association in the promotion of the annual national children's dental health day; and to recommend speakers for lay groups.

Professional Relations Committee: To coordinate the activities of the Society with activities of the American Academy of Pedodontics, the American Association of Orthodontics, the American Society of Pediatrics, the American Academy of Pediatrics and other medical and dental organizations which are organized for the promotion of child health; to maintain a roster of approved clinicians on pedodontics and designate suitable clinical programs for state and local dental meetings which emphasize the practice of pedodontics.

School and Dental Boards Committee: To keep a permanent record of the time and the degree of emphasis allotted to the teaching of pedodontics in the various dental colleges; to work with the Council of Dental Education of the American Dental Association in raising the requirements and standards of pedodontic teaching with the giving of proper emphasis to this subject; to maintain liaison with the various state boards of dental examiners with the view of giving pedodontics proper evaluation in examinations for licensing dentists.

Community Dental Programs Committee: To study community dental service, and dental

educational programs for children and set up desirable standards for such programs; to assist when possible in the formation of programs in local communities by working with the State Units when the advice and assistance of the committee is requested; to maintain liaison with the Council of Dental Health of the American Dental Association so that the Society may assist the Council in the promotion of dental health.

Section 2. There shall be an Editorial Board of three active members elected by the Executive Council: one for one year, one for two years, and one for three years, and thereafter one each year for three years which shall be the term of this office. This Board shall be in charge of the financing of the Journal of Dentistry for Children and shall act in an advisory capacity to the Editor of the Journal but shall not be responsible for the editorial policies of the Journal.

It shall be the duty of the Editorial Board to consult with and advise the Editor at his request. This Editorial Board shall include one person whose function shall be that of business manager for the Journal of Dentistry for Children, one person to act to gather material suitable for publication in the Journal of Dentistry for Children and one person to act to publicize and help to distribute fit material on dentistry for children to other periodicals and to the profession and public at large. The business manager shall arrange for and gather acceptable advertising copy for the Journal of Dentistry for Children and shall review annually the cost and expenditures related to publication. The Editorial Board shall act together and with the Editor to determine policy and when desirable to assist each other in the discharge of their specially assigned duties.

Section 3. The President shall be empowered to appoint such special committees as he deems needful at any time; or, on the majority vote of the members present at any meeting he shall appoint committees as they direct.

Section 4. At least thirty days prior to the annual meeting of the Society, the President shall appoint and publish the personnel of two committees: (1) A Nominating Committee composed of three members to present the list of candidates for election to office for the following year. (2) An Auditing Committee composed of three members to audit the Treasurer's books.

Section 5. Within sixty days after the annual meeting of the Society, the President shall appoint a program and local arrangements committee. The duties of this committee shall be to develop the scientific program for the next annual meeting; to make the necessary local arrangements including hotel accommodations for all clinicians; to publish and mail to the membership, at least 30 days prior to the meeting, the program. The printing of the program in the Journal of Dentistry for Children shall be deemed sufficient when the publication date approximates the indicated time.

Article V

RULES OF ORDER

The Society shall be governed in all matters not covered by the Constitution and By-Laws by Robert's "Rules of Order Revised."

Article VI

DUITES OF OFFICERS

Section 1. It shall be the duty of the President to preside at all meetings of the Society; to approve all bills for payment; sign all documents; appoint all committees not otherwise provided for; present an annual address, and perform such other duties as are customary to his office.

Section 2. The President-Elect shall arrange the program of and preside at the joint meeting of the State Unit delegates and Executive Council.

Section 3. The Vice-President shall assume the duties of the President in his absence.

Section 4. It shall be the duty of the Secretary-Treasurer to keep a record of the transactions of the Society and of the Executive Council; to attend to all correspondence; keep all official letters received, with a copy of replies to same; to send notice to all members of time and place of meetings; to notify officers, applicants for membership, committees, and others of their election or appointments; and, to keep an accurate list of members, together with their addresses.

He shall collect all monies due the Society from its members and component Societies.

At the expiration of his term of office he shall turn over to his successor all records, books, or other properties relating to his office and perform all other duties pertinent to his office.

He shall keep all monies belonging to the Society, and pay out same, provided the money is in hand, upon the presentation of a properly approved voucher.

He shall furnish a bond, at the expense of the Society, for an amount designated by the Executive Council.

He shall make an accurate report of the Society's Treasury at the annual meeting. The Secretary-Treasurer shall be paid a salary of one dollar per year.

He shall be awarded, in addition to his salary, an honorarium of three hundred dollars per year.

Section 5. The Editor shall be responsible for the publishing of "The Journal of Dentistry for Children.

Article VII

EXECUTIVE COUNCIL

Section 1. The Executive Council shall consist of the President, the President-Elect, the Vice-President, the two immediate Past-Presidents, the Secretary-Treasurer, the Editor, and four other members to be elected the first year as follows: two for one year, and two for two years, each being replaced as his term expires by a member elected to the Council for a term of two years which shall be the term of this office thereafter.

The Editor shall hold his office from year to year at the pleasure of the Executive Council. The Editor shall have the power to appoint an assistant Editor, and contributing Editors for a term of one year.

Section 2. Those members of the Executive Council present at a regularly called meeting shall constitute a quorum. Special meetings of the Council may be held at any time and place that a quorum may be gathered, each member of the Council having received notification.

Section 3. The Executive Council shall conduct the business of the Society between meetings. It shall adopt the budget for the Society and approve the expenditure of the Society's money by appropriation to the various committees or other special appropriations. It shall elect such officers and committees as are specified in the By-Laws. It shall render a full and complete report to the Society of all of its actions as well as of all matters brought before it, which when approved by the Society becomes the action of the Society.

Section 4. The Executive Council, meeting and voting jointly with the delegates at the annual meeting, shall elect a member of the Board of Pedodontics. Candidates for election to this position shall be diplomates of the Board.

Section 5. The Executive Council shall be empowered to select and recommend for approval to the delegate body an executive secretary with salary, length of contract and duties to be clearly specified. Upon approval of the delegate body contract for such services shall be negotiated by the President and Secretary. It shall be the duty of the Executive Council to arrange for suitable office space to be designated as Headquarters of the Society.

IRREGULAR TEETH. AN EVALUATION OF THEIR EFFECT ON CARIES-ATTACK RATE

What is the relationship of irregular teeth to the dental caries attack rate?

Since 1923 important investigations have been carried out by a group of research workers at the University of Michigan. They have demonstrated that L. acidophilus is present in every case of active caries. On the contrary, in mouths which are free from dental caries or in which the disease has become inactive the organism is usually absent. Bunting, Jay, Hill and others have pointed out that there is a close relationship between the number of L. acidophilus and dental caries. When caries is absent from the mouth or is non-active the L. acidophilus count is zero or very low. When the count is high, caries is very active. At present the quantitative estimation of L. acidophilus is used as an index of the degree of carious activity.

Bunting and Hill have pointed out: "The amount of carbohydrates habitually retained about the teeth varies in different individuals, being determined by the perfection and regularity of arrangement of the teeth, the proportion of the saliva, habits of mastication and personal care of the mouth and by the character of the food ingested."

Sullivan states that caries is less prevalent where teeth are in normal occlusion Miller states that certain types of interproximal caries are more prevalent in dentition with traumatic occlusion. Brucker has pointed out that faulty arrangement or relation of the teeth plays an important role in the production of caries. Bibby says that less food will accumulate about teeth of good shape and which are in correct position and they will therefore be less liable to decay. Bunting and Hill think that when teeth are irregularly placed, so that there is no normal interdental space or contact, there is a strong predisposition to proximal caries. None submit statistical evidence to lend weight to their opinions and it must be remembered that sweetened water (such as soft drinks) which does not accumulate around teeth will provide sugar for caries activity. Mouths may be immune when the teeth are regular or irregular.

Conclusions

(1) Irregular teeth are not a direct cause of dental caries.

(2) There is presumptive evidence that irregular teeth aid in the retention of foodstuffs and therefore the production of enzymes and plaques which protect the growth of L. acidophilus.

(3) There is presumptive evidence that irregular teeth increase the caries attack rate indirectly.

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